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Minerals Yearbook: Volume I.-- Metals and Minerals

Listed below are links to chapters from the Minerals Yearbook (Volume I.-- Metals and Minerals). These annual reviews contain statistical data and information on approximately 90 commodities.

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STONE, CRUSHED

By Valentin V. Tepordei

Domestic survey data and tables were prepared by Susan M. Copeland, Evangeline Hemphill, Richard Kraft, and Shonta Osborne, statistical assistants.

Stone is one of the most accessible natural resources of the Earth and one of the fundamental building blocks of our society. It has been used from the earliest times of our civilization for a variety of uses that have increased in number and complexity with time and technological progress. Today, in its crushed form, stone is a major basic raw material for construction, agriculture, and other industries that use complex chemical and metallurgical processes. Despite the relatively low unit value of its basic products, the crushed stone industry is a major contributor to and an indicator of the economic well-being of the Nation. Crushed stone and construction sand and gravel combined are defined as construction aggregates. The construction sand and gravel industry is reviewed in a separate chapter, and both mineral commodities should be included in any review of the national, State, or local aggregates industry.

A total 1.53 billion metric tons (Gt) of crushed stone was produced for consumption in the United States in 2003, an 18-million-metric-ton (Mt) or 1.2% increase compared with the revised total production in 2002. This tonnage represents the third highest production level ever recorded in the United States. The value of the total crushed stone produced in the United States in 2003 was $9.2 billion, a 6% increase compared with the revised 2002 total (table 1).

About 70.1% of crushed stone production continued to be limestone and dolomite, followed, in descending order of tonnage, by granite, traprock, sandstone and quartzite, miscellaneous stone, marble, calcareous marl, slate, volcanic cinder and scoria, and shell (table 2).

Foreign trade of crushed stone continued to remain small. Exports decreased significantly in 2003 to 1 Mt from 2.6 Mt, or by 60.5%, compared with the total of 2002, while the value decreased to $45.6 million, or by 15.6%, compared with the total of $54 million in 2002 (table 26).

Imports of crushed stone, including calcium carbonate, increased by 7% to 15,300 Mt, and the value increased by 15.3% to $143 million (table 27). Apparent domestic consumption of crushed stone, which is defined as production for consumption (sold or used) plus imports minus exports, was 1.54 Gt (tables 1, 26, 27).

Production

Domestic production data for crushed stone are derived by the U.S. Geological Survey (USGS) from voluntary surveys of U.S. producers. In 2003, a total of 1,203 companies produced or sold crushed stone from 3,149 operations with 3,223 quarries and 182 sales/distribution sites. Of the 3,149 active operations, 2,380 operations reported their production or sales to the USGS, and their total production was 1.3 Gt, or 85.2% of the U.S. total. Of the 2,380 reporting operations with 2,447 quarries, 755 operations with 778 quarries and 89 sales yards owned by 200 companies did not report a breakdown by end use. Their total production was 499 Mt, or 32.6% of the U.S. total, and is included in table 13 under "Unspecified, reported" uses.

Production of nonrespondents was estimated using employment data and/or adjusted production reports from prior years. The estimated output of 769 nonrespondent operations with 776 quarries owned by 272 companies was 227 Mt, or 14.8% of the U.S. total, and is included in table 13 under "Unspecified, estimated" uses.

A total of 182 sales yards were active in 2003 in 29 States, an increase from the previous year in the number of active sales yards but a decrease in the number of States to 29 from 30. The total output sold through the sales/distribution yards was 49 Mt. Information regarding the number of active operations, active quarries, type of processing plants, and number of sales yards by State is provided in table 25.

Crushed stone was produced in every State except Delaware. The 10 leading producing States, in descending order of tonnage, were Texas, Pennsylvania, Florida, Illinois, Georgia, Missouri, Ohio, Virginia, North Carolina, and California. Their combined production was about 812 Mt, or 53% of the national total.

The 82 underground mines that are included in the total number of active operations produced 50.6 Mt of crushed stone in 2003. Active underground mines were located in 17 States. The five leading States, in descending order of tonnage, were Kentucky, Indiana, Iowa, Illinois, and Tennessee. Their combined production was 10.3 Mt, or 20.5% of the total U.S. crushed stone produced underground.

A total of 840 operations were either idle or presumed to have been idle in 2003 because no employment information was available to estimate their production. Since the 2002 survey, 217 operations were closed. Most of the idle or closed operations were small, temporary quarries, some of which were operated by State or local governments. Operations in U.S. territories are not included in the above count.

Of the total 1.53 Gt of crushed stone produced for consumption in the United States in 2003, 1.1 Gt, or 70.1%, was limestone and dolomite; 242 Mt, or 15.8%, was granite; and 115 Mt, or 7.5%, was traprock. The remaining 101 Mt, or 6.6%, was shared, in

descending order of quantity, by sandstone and quartzite (3.5%), miscellaneous stone (1.8%), marble (0.6%), calcareous marl (0.3%), slate (0.2%), volcanic cinder and scoria (0.1%), and shell (0.1%) (table 2).

A comparison of the four geographic regions of the United States indicates that, in 2003, the production for consumption of crushed stone declined in two regions, the West (-8.6%), and the Midwest (-3.5%), but increased in the South (6.4%) and the Northeast (1.1%) compared with 2002. In 2003, the South continued to lead the Nation in the production of crushed stone with 744 Mt, or 48.6% of the total, followed by the Midwest with 420 Mt, or 27.4%, and the Northeast with 220 Mt, or 14.3%. About 76% of the total U.S. crushed stone output was produced in the South and Midwest regions (table 3).

A comparison of the nine geographic divisions of the United States indicates that, in 2003, the production for consumption of crushed stone declined in five divisions compared with 2002. The largest decreases were in the Pacific (-11%), New England (-5.6%), and East North Central (-4.6%). The production for consumption of crushed stone increased in four geographic divisions compared with 2002. The major increases were in the West South Central (7.2%), East South Central (6.1%), and South Atlantic (6%) divisions, all of which are part of the South. Of the nine geographic divisions, the South Atlantic led the Nation in the production of crushed stone with 379 Mt, or 24.8% of the U.S. total, followed by the East North Central with 267 Mt, or 17.5%, and the West South Central with 204 Mt, or 13.3% (table 3).

The leading U.S. producing companies, in descending order of tonnage, were Vulcan Materials Co.; Martin Marietta Aggregates; Hanson Building Materials America, Inc; Oldcastle, Inc./Materials Group; Lafarge North America Inc.; Rinker Materials Corp.; Rogers Group, Inc.; Florida Rock Industries, Inc.; Ashland, Inc.; and CEMEX, Inc. The combined production of the top 10 companies was 672 Mt, or 44% of the national total. There was no change in the ranking of the five leading producing companies compared with the previous year.

A review of production by size of operation at the national level indicates that in 2003, 862 Mt of crushed stone or 56.3% of the total crushed stone total, was produced by 492 operations reporting more than 1 million metric tons per year (Mt/yr); 353 Mt, or 23%, was produced by 550 operations reporting between 500,000 and 999,999 metric tons per year (t/yr); and 284 Mt, or 18.6%, was produced by 1,165 operations reporting between 100,000 and 500,000 t/yr. The production by size of operation information also indicates that 79.3% of total crushed stone produced in the U.S. in 2003 came from operations that produced more than 500,000 t/yr (table 7a). By geographic regions, in 2003, the South had 1,108 active operations, followed by the Midwest with 1,033 active operations and the West with 600 active operations (table 7b).

The declining trend in the consolidation of the U.S. aggregates industry that started in 2000 continued in 2003 as well. There were no major acquisitions in the crushed stone industry in 2003.

In March, CSR Ltd. of Sydney, Australia, announced the breakup of the company into two independent business entities, CSR Ltd. and Rinker Group Ltd. Rinker Group Ltd. includes three subsidiaries, Rinker Materials Corp. of West Palm Beach, FL, a major U.S. aggregates producer, and two Australian companies, Australia Ready Mix PLC., and Humes PTY Ltd., a concrete pipe manufacturer (Rock Products, 2003a).

In May, Hanson PLC announced that it signed a contract to acquire Better Materials Corp. of Penns Park, PA, which operates six crushed stone quarries, five sand and gravel pits, and seven asphalt plants in Pennsylvania and New Jersey. Better Materials operations were integrated into Hanson's northeast aggregates region, which operates in Pennsylvania and New York (Rock Products, 2003b).

Also in May, Oldcastle acquired the assets of S.E. Johnson, an aggregates and hot-mix asphalt producer with 45 facilities in Indiana, Michigan, and Ohio (Rock Products, 2003c).

In July, Lafarge announced that it acquired from Birmingham Aggregates of Birmingham, AL, a 350-acre former iron-ore processing site, permitted as a limestone quarry. The new quarry will be part of the Lafarge Aggregates Southeast Division (Rock Products, 2003e).

In November, Aggregates Industries, Inc. announced that it acquired SNP of Las Vegas, NV, a major aggregates, asphalt, and contracting business. The SNP holdings include 50% interest in the 530-acre Sloan Mountain Quarry, which has more than 650 Mt of high-quality limestone reserves (Rock Products 2003a).

Calcareous Marl.—Output of marl increased by 13.1% to 5.1 Mt valued at $18.5 million compared with the revised 2002 totals (table 2). Marl was produced by six companies with six quarries in three States. The leading producers, in descending order of tonnage, were Holcim (U.S.), Inc.; Lafarge; and Capitol Aggregates, Ltd.

Dolomite.—Production of dolomite decreased by 4.1% to 89.1 Mt valued at $526 million compared with the revised 2002 totals (table 2). Crushed dolomite was reportedly produced by 92 companies at 188 operations with 210 quarries in 27 States. An additional undetermined amount of dolomite is included in the total crushed limestone, as explained above.

The leading producing States, in descending order of tonnage, were Illinois, Pennsylvania, and New York; the total production of these three States was 40.8 Mt, or 45.8% of the total U.S. output (table 8). The leading producers, in descending order of tonnage, were Oldcastle, Material Services Corp., Hanson, Martin Marietta, and Vulcan Materials. Their combined total production was 35.7 Mt, or 40% of the U.S. dolomite total.

Granite.—The output of crushed granite increased by 3.9% to 242 Mt valued at $1.74 billion compared with the revised 2002 totals (table 2). Crushed granite was produced by 127 companies at 369 operations with 342 quarries in 34 States. The leading States, in descending order of tonnage, were Georgia, North Carolina, Virginia, South Carolina, and California, and the total production of these five States was 171 Mt, or 70.7% of the U.S. output (table 9). The leading producers, in descending order of tonnage, were Vulcan Materials, Martin Marietta, Hanson, Florida Rock Industries, and Aggregates Industries. Their combined total production was 150.7 Mt, or 62% of the U.S. granite total.

Limestone.—The 2003 output of crushed limestone, including some dolomite, increased slightly (0.6%) to 984 Mt valued at $5.46 billion compared with the revised 2002 total of 977 Mt valued at $5.2 billion (table 2).

Limestone was produced by 682 companies at 1,816 operations with 1,796 quarries and 127 sales yards in 47 States. In addition, 34 companies with 49 operations and 49 quarries reported producing limestone and dolomite from the same quarries. Their production of about 19 Mt of limestone and dolomite combined is included with the limestone listed in table 2. The limestone totals listed in this chapter, therefore, include an undetermined amount of dolomite in addition to the dolomite reported separately.

The leading producing States, in descending order of tonnage, were Texas, Florida, Missouri, Pennsylvania, and Ohio; the total production of these five States was 405.7 Mt, or 41.2% of the total U.S. output (table 8). The leading producers of limestone, in descending order of tonnage, were Vulcan Materials, Martin Marietta, Hanson, Rinker Materials, and Lafarge. Their combined total production was 304.1 Mt, or 32% of the U.S. total.

Marble.—Production of crushed marble decreased by 6.3% to 8.9 Mt valued at $51.3 million compared with the revised totals for 2002 (table 2). Crushed marble was produced by 13 companies with 23 operations and 26 quarries in 12 States. The leading producers of crushed marble, in descending order of tonnage, were Imerys Marble, Inc.; Pluess Staufer Industries; Florida Rock Industries; GA Marble Stone Corp.; and Vulcan Materials. Their combined total production represented 89% of the U.S. marble total.

Miscellaneous Stone.—Output of other kinds of crushed stone increased by 7% to 27.1 Mt valued at $165 million compared with the revised 2002 totals (table 2). Miscellaneous stone was produced by 84 companies at 141 operations with 132 quarries in 32 States. The leading producing States, in descending order of tonnage, were Pennsylvania, California, and Alaska; their combined production was 14.4 Mt, or 47.5% of the total U.S. output. Leading producers, in descending order of tonnage, were Hanson, MDU Resources Group, and the U.S. Forest Service. Their combined total production was 7.9 Mt, or 29% of the U.S. miscellaneous stone total.

Sandstone and Quartzite.—The output of crushed sandstone and quartzite increased by 1.8% to 53.3 Mt valued at $340 million compared with the revised 2002 totals (table 2). Crushed sandstone was produced by 102 companies with 133 quarries in 21 States, while quartzite was produced by 36 companies with 39 quarries in 19 States.

The leading producing States, in descending order of combined tonnage of sandstone and quartzite, were Pennsylvania, Arkansas, South Dakota, Oklahoma, and California, and their combined total production was 29.5 Mt, or 55.4% of the U.S. output (table 9). The leading producers of sandstone and quartzite, in descending order of tonnage, were Martin Marietta, Lafarge, Ashland Inc., Oldcastle, and New Enterprise Stone & Lime Co., Inc. Their combined total production was 21.3 Mt, or 40% of the U.S. sandstone and quartzite total.

Shell.—Shell is derived mainly from fossil reefs or oyster shell banks. The output of crushed shell increased by 56.4% to 1.5 Mt valued at $9.4 million compared with the revised 2002 totals (table 2). Crushed shell was produced by eight companies with eight quarries in six States. The leading producers, in descending order of tonnage, were Oldcastle, Caloosa Shell Corp., and Langenfelder & Sons, Inc.

Slate.—The output of crushed slate decreased by 11.2% to 3.4 Mt valued at $23.9 million compared with the revised 2002 totals (table 2). Crushed slate was produced by 14 companies at 14 quarries in 11 States. Most of the crushed slate was produced in North Carolina. The leading producers, in descending order of tonnage, were Martin Marietta; NAPA Development Corp., Inc.; and McCartney Construction. Their combined total production was 2.5 Mt, or 74% of the U.S. slate total.

Traprock.—Production of crushed traprock increased by 1.5% to 115 Mt valued at $807 million compared with the revised 2002 totals (table 2). Traprock was produced by 207 companies at 329 operations with 445 quarries in 23 States. The leading producing States, in descending order of tonnage, were Oregon, Virginia, New Jersey, California, and Washington; these five States produced 67.3 Mt, or 58.3% of U.S. output (table 9). Leading producers, in descending order of tonnage, were Oldcastle; Luck Stone Corporation; Vulcan Materials; MDU Resource Group, Inc.; and Eucon Co. Their combined total production was 46.2 Mt, or 40% of the U.S. traprock total.

Volcanic Cinder and Scoria.—Production of volcanic cinder and scoria increased by 7.8% to 2.2 Mt valued at $13.6 million compared with the revised 2002 total (table 2). Volcanic cinder and scoria were produced by 18 companies from 33 operations with 33 quarries in 12 States. The leading producing States, in descending order of tonnage, were California, New Mexico, and Oregon (table 11). The leading producers, in descending order of tonnage, were Martin Marietta, Devon Dee LLC, and Rinker Materials. Their combined production accounted for 53% of the U.S. volcanic cinder and scoria total.

Consumption

Crushed stone production reported to the USGS is actually material that was either sold to other companies or consumers or was used by the producers. Stockpiled production is not included in the reported quantities. The "sold or used" tonnage, therefore, represents the amount of production released for domestic consumption or export in a given year. Because some of the crushed stone producers did not report a breakdown by end use, their total production is included in the "Unspecified, reported" use. The estimated production of nonrespondents is included in the "Unspecified, estimated" use.

In 2003, U.S. consumption of crushed stone was 1.53 Gt, a 1.2% increase compared with the revised consumption of 2002. This total is slightly different from the apparent consumption of crushed stone which is defined as U.S. production plus imports minus exports. Of the 1.53 Gt of crushed stone consumed, 499 Mt, or 32.6% of the total, was "Unspecified, reported," and 227 Mt, or 14.8% of the total, was "Unspecified, estimated."

Of the remaining 806 Mt, reported by uses by producers, 81.7% was used as construction aggregates, mostly for highway and road construction and maintenance; 14.8%, for chemical and metallurgical uses, including cement and lime manufacture; 1.6%, for

agricultural uses; and 1.9%, for special and miscellaneous uses and products (table 13). Unspecified uses are not included in the calculation of the above percentages. It is recommended that in any use-pattern study or marketing analysis, the quantities included in unspecified uses be prorated and added to the reported uses by applying the above percentages calculated for the reported quantities. Using this procedure, the analyst assumes that the breakdown by uses of the unspecified uses is similar to the reported uses.

U.S. consumption of crushed stone increased despite the fact that, according to the U.S. Census Bureau data, the overall construction spending levels in 2003 were essentially stagnant relative to 2002 at $700.3 billion (in constant 1996 dollars). Residential construction overall was up by 7.6% to about $364 billion, mostly owing to an 11.3% increase in construction of new single family houses and a modest increase of 2.3% for new multifamily residential constructions. These increases were a reflection of continued very low mortgage and general interest rates. Most of all, other construction categories showed spending declines in 2003. Nonresidential private construction declined by 8.4% to $122.6 billion, public sector spending fell by 2% to $173.6 billion, and highway and street construction declined by 2.4% to $48.1 billion.

Calcareous Marl.—Of the 5.1 Mt of crushed calcareous marl consumed, 3.9 Mt or 77.1% was used for cement manufacturing.

Dolomite.—Of the 89.1 Mt of crushed dolomite consumed, 27.2 Mt, or 30.5% of the total, was in "Unspecified, reported" uses, and 7.2 Mt, or 8.1% of the total, was in "Unspecified, estimated" uses. Of the remaining 54.7 Mt of crushed dolomite reported by uses by the producers, 87.4% was used as construction aggregates; 7.9%, for chemical and metallurgical applications; and 2.7%, for agricultural uses. An additional undefined amount of dolomite consumed in a variety of uses, mostly construction aggregates, is reported with the limestone (table 14).

Additional detailed production information for total combined limestone and dolomite by State and major uses is provided in table 15.

Granite.—Of the 242 Mt of crushed granite consumed, 93.2 Mt, or 38.5%, was in "Unspecified, reported" uses, and 21.2 Mt, or 8.8%, was in "Unspecified, estimated" uses. Most of the remaining 127.6 Mt was used as construction aggregates (table 17).

Limestone.—Of the 984 Mt of crushed limestone consumed, 300 Mt, or 30.5% of the total, was in "Unspecified, reported" uses, and 158 Mt, or 16.1% of the total, was in "Unspecified, estimated" uses. Of the remaining 526 Mt of crushed limestone, reported by uses by the producers, 74.9% was used as construction aggregates; 20.7% was used for chemical and metallurgical applications including cement and lime manufacturing; 2.2%, for agricultural uses; and 2.3% for special and miscellaneous uses and products (table 14).

Marble.—Of the 8.9 Mt of crushed marble consumed, 1.7 Mt, or 19.2% of the total, was reported as "Unspecified, reported," and 5.8 Mt, or 64.8%, was in "Unspecified, estimated." Of the remaining 1.4 Mt of crushed marble reported by uses by the producers, 55.1% was used as construction aggregates, and 44.4% for whiting and whiting substitutes and as fillers and extenders (table 16).

Miscellaneous Stone.—Of the 30.4 Mt of miscellaneous crushed stone consumed, which included crushed slate, 11.9 Mt, or 39.1% of the total, was in "Unspecified, reported uses," and 8.9 Mt, or 29.3% of the total, was in "Unspecified, estimated uses." Of the remaining 9.6 Mt reported by uses by the producers, 7.6 Mt, or 79.4%, was used as construction aggregates.

Sandstone and Quartzite.—Of the 38.8 Mt of crushed sandstone consumed, 17.1 Mt, or 44.1%, was in "Unspecified, reported" uses, and 9.5 Mt, or 24.5%, in "Unspecified, estimated." Of the remaining 12.2 Mt of crushed sandstone reported by uses by the producers, 11.8 Mt, or 96.5%, was used as construction aggregates (table 18).

Of the 14 Mt of crushed quartzite consumed in the United States, 7.1 Mt, or 48.7%, of the total was in "Unspecified, reported" uses, and 417,000 t, or 2.9% of the total, was in "Unspecified, estimated uses." Of the remaining 7 Mt of crushed quartzite reported by uses by the producers, 6.4 Mt, or 90.9%, was used as construction aggregates (table 18).

Shell.—Of the 1.5 Mt of crushed shell consumed, 192,000 metric tons (t), or 12.8%, was reported as "Unspecified, estimated" uses. Most of the remaining 1.3 Mt was used as construction aggregates.

Traprock.—Of the 115 Mt of crushed traprock consumed, 38.8 Mt, or 33.7%, was in "Unspecified, reported" uses, and 15.1 Mt or 13.1% was in "Unspecified, estimated" uses. Most of the remaining 61 Mt was used as construction aggregates (table 17).

Volcanic Cinder and Scoria.—Of the 2.2 Mt of volcanic cinder and scoria consumed, 1.1 Mt, or 50.1% of the total, was in "Unspecified, reported uses," and 430,000 t, or 19.8% of the total, was in "Unspecified, estimated uses." Of the remaining 655,000 t of crushed volcanic cinder and scoria, 545,000 t or 83.2% was used as construction aggregates (table 19).

Additional information regarding production and consumption of crushed stone by type of rock and major uses in each State and the State districts may be found in the U.S. Geological Survey Minerals Yearbook, volume II, Area Reports: Domestic.

Recycling

As the recycling of most waste materials increases, aggregates producers are recycling more cement concrete and asphalt concrete materials recovered from construction projects to produce concrete aggregates and asphalt aggregates. The recycling of cement concrete is done at some quarries and increasingly at sales yards or distribution sites, whereas asphalt concrete is recycled mostly at the construction sites. The annual survey of crushed stone producers collects information on recycling of cement and asphalt concretes produced by the crushed stone producers only. These amounts represent a small percentage of the total recycled cement and asphalt concretes because the recycling of these materials is done mostly by the construction or demolition companies, and those companies are not surveyed by the USGS.

Asphalt Concrete.—A total of 1.5 Mt of asphalt concrete valued at $11 million was recycled in 2003 by 60 companies in 28 States. The volume of recycled asphalt concrete increased by 40.6% compared with the revised 2002 total (tables 20, 21). The leading recycling geographic regions, in descending order of tonnage, were the Northeast, West, and Midwest. The leading recycling States,

in descending order of tonnage, were California, New York, New Jersey, Pennsylvania, and Maine. Their combined total represented 68.2% of the U.S. total. The leading recycling companies, in descending order of tonnage produced, were Oldcastle, Raisch Products, and Colas, Inc.

Cement Concrete.—A total of 4 Mt of cement concrete valued at $22.1 million was recycled by 46 companies in 26 States. This tonnage represents a 57.8% increase compared with the 2002 total (tables 22, 23). The leading recycling geographic regions, in descending order of tonnage, were the Midwest, Northeast, and West. The leading recycling States, in descending order of tonnage, were Illinois, Indiana, California, New Jersey, and Florida. The leading companies, in descending order of tonnage produced, were Vulcan Materials, Martin Marietta, and Oldcastle.

Prices

Prices in this chapter are the average annual free on board (f.o.b.) plant prices, usually at the first point of sale or captive use, as reported by the crushed stone producing companies. This value does not include transportation from the plant or yard to the consumer. It does, however, include all costs of mining, processing, in-plant transportation, overhead costs, and profit. The average unit price of crushed stone increased by 4.7% to $5.98 per metric ton compared with the revised unit price of 2002. The average unit prices, by kind of stone, increased by between 2.6% for crushed sandstone and quartzite, and 10.4% for crushed slate, and decreased between 4.2% for crushed marble and 18.8% for crushed calcareous marl (table 2). It should be noted that a good number of companies report only production and no f.o.b. values of their production. For those operations, the unit values of total production or specific end uses are being estimated usually based on what other operations in the same State reported.

Additional information regarding prices of crushed stone by type of rock and uses in the United States and each State and the State districts may be found throughout the tables included in this chapter as well as in the U.S. Geological Survey Minerals Yearbook, volume II, Area Reports: Domestic.

Transportation

For 738 Mt, or 48.2%, of the 1.53 Gt of crushed stone produced for consumption in 2003, no means of transportation was reported by the producers. Of the remaining 794.3 Mt of crushed stone, 606.2 Mt or 76.3% was reported as being transported by truck from the processing plant or quarry to the first point of sale or use; 33.3 Mt, or 4.2%, by rail; and 36.4 Mt, or 4.6%, by waterway. About 11.3% of the specified production was reported as not having been transported and, therefore, is assumed to have been used onsite.

Shipment by truck remains the most widely used method of transportation for crushed stone. The significant increase in the number of sales and distribution yards in the past couple of years and the increase in the volume of crushed stone going through these sites have a positive impact on the industry as well as the communities they serve. Distribution sites located near metropolitan areas significantly reduce the distance most trucks have to travel to pick up and deliver crushed stone. Therefore the transportation costs are reduced, as the impact of heavy traffic on the environment. Sales yards serve both to distribute products and as recycling sites. This provides efficiency for the industry while helping to protect the environment.

Information regarding means of transportation used by the producers to ship crushed stone from the production site to the consumer in each geographic region is provided in table 24.

Foreign Trade

The widespread distribution of domestic deposits of stone suitable for mining as crushed stone, the large number of existing active operations around the country, and the high cost of transportation limit foreign trade to mostly local transactions across international boundaries. Shipments of crushed stone by water, especially from Canada, Mexico, and the Caribbean, continue to increase. U.S. imports and exports continue to be small, representing less than 1% of domestic consumption.

Exports.—Exports of crushed stone decreased significantly in 2003 by 60.5% to 1 Mt compared with the total of 2.6 Mt of 2002, while the value decreased by 15.6% to $45.6 million. Most of this decline is owing to a significant drop in the amount of limestone for cement manufacturing exported to Canada. In 2003, about 43.8% of the exported crushed stone was limestone for cement manufacturing valued at an average unit price of $27.25 per ton, and 35% of the exported crushed stone was limestone used as construction aggregates valued at an average unit value of $13.60 per ton. Canada continues to be the major destination with 92.7% of the total exports of crushed stone (table 26).

Imports.—Imports of crushed stone increased by 7.4% to 15.3 Mt compared with those of 2002, and the value increased by 14.7% to $143 million. About 80.5% of the imported crushed stone was limestone used as construction aggregates, as flux, and for cement manufacturing.

Imports of natural calcium carbonate increased in 2003 to 132,000 t from 113,000 t in 2002, a 16.8% increase and the value increased to $11 million, a 26% increase (table 27).

Most of the imported crushed stone was used as construction aggregates or for cement manufacturing. This trend is expected to continue, and the volume of imports is expected to increase but will continue to remain very small compared with total domestic output.

Outlook

The demand for crushed stone in 2004 is expected to remain at the 2003 level of 1.5 Gt. Gradual increases in demand for construction aggregates are anticipated after 2004 based on the expected volume of work on the infrastructure that will be financed by the new Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003, the new Flight 100—Century of Aviation Reauthorization Act, and the expanding U.S. economy in general. The long-term projected increases will be influenced by the construction activity in the public and private construction sectors as well as by the new construction work related to security measures being implemented around the Nation. Crushed stone f.o.b. prices are not expected to increase significantly, but the delivered prices of crushed stone are expected to increase, especially in and near metropolitan areas, mainly because more aggregates are transported from more distant sources.

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TABLE 1
SALIENT CRUSHED STONE STATISTICS[1]

(Thousand metric tons and thousand dollars)

	1999	2000	2001	2002	2003
Sold or used by producers:[2]					
Quantity	1,530,000	1,550,000	1,590,000	1,510,000 r	1,530,000
Value	8,180,000	8,290,000	8,870,000	8,650,000 r	9,160,000
Exports, value	30,800	29,700	35,600	54,000	45,600
Imports, value[3]	106,000	105,000	110,000	124,000 r	143,000

rRevised.

[1]Data are rounded to no more than three significant digits.

[2]Does not include American Samoa, Guam, Puerto Rico, and the U.S. Virgin Islands.

[3]Excludes precipitated calcium carbonate.

TABLE 2

CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY KIND[1, 2]

Kind	2002				2003			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone[3]	1,869 r	977,000 r	$5,220,000 r	$5.35	1,845	984,000	$5,460,000	$5.55
Dolomite	216 r	92,900 r	516,000 r	5.56 r	210	89,100	526,000	5.91
Marble	26	9,480 r	57,100 r	6.02 r	26	8,890	51,300	5.77
Calcareous marl	6	4,530	20,200	4.46	6	5,120	18,500	3.62
Shell	8	963	5,640	5.86	8	1,510	9,390	6.24
Granite	346 r	233,000 r	1,550,000 r	6.66 r	342	242,000	1,740,000	7.21
Traprock	410 r	114,000 r	757,000 r	6.66 r	445	115,000	807,000	6.99
Sandstone and quartzite[4]	182 r	52,400 r	326,000	6.22 r	166	53,300	340,000	6.38
Slate	19 r	3,800 r	24,400 r	6.42 r	14	3,370	23,900	7.09
Volcanic cinder and scoria	39 r	2,020 r	14,800 r	7.36 r	33	2,170	13,600	6.27
Miscellaneous stone	166 r	25,300 r	149,000 r	5.88 r	132	27,100	165,000	6.11
Total or average	XX	1,510,000 r	8,650,000 r	5.71	XX	1,530,000	9,160,000	5.98

rRevised. XX Not applicable.

[1]Data are rounded to no more than three significant digits, except unit values and number of quarries; may not add to totals shown.

[2]Does not include American Samoa, Guam, Puerto Rico, and the U.S. Virgin Islands.

[3]Includes limestone-dolomite reported with no distinction between the two kinds of stone.

[4]Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

TABLE 3

CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY GEOGRAPHIC DIVISION[1, 2]

(Thousand metric tons and thousand dollars)

Region/division	2002		2003	
	Quantity	Value	Quantity	Value
Northeast:				
New England	38,900	268,000 r	36,700	271,000
Middle Atlantic	179,000	1,090,000 r	183,000	1,120,000
Midwest:				
East North Central	280,000 r	1,350,000	267,000	1,340,000
West North Central	155,000 r	822,000 r	152,000	890,000
South:				
South Atlantic	358,000	2,270,000 r	379,000	2,560,000
East South Central	152,000	918,000 r	161,000	1,000,000
West South Central	190,000 r	946,000 r	204,000	1,060,000
West:				
Mountain	53,000 r	297,000 r	51,000	276,000
Pacific	110,000 r	685,000 r	98,000	637,000
Grand total or average	1,510,000 r	8,650,000 r	1,530,000	9,160,000

rRevised.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Does not include American Samoa, Puerto Rico, and the U.S. Virgin Islands.

TABLE 4

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE[1, 2]

State	2002			2003		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alabama	43,400	$257,000 r	$5.93 r	49,300	$286,000	$5.80
Alaska[3]	2,810 r	15,200 r	5.42	2,640	15,300	5.81
Arizona	8,450	51,500 r	6.09 r	9,950	49,100	4.93
Arkansas	30,600 r	158,000 r	5.16	30,000	146,000	4.87
California	67,400	423,000	6.28	55,500	366,000	6.59
Colorado	15,000	96,000	6.42	10,400	64,100	6.18
Connecticut	10,200	76,500 r	7.53 r	10,400	81,800	7.88
Florida	97,700	573,000	5.87	97,500	592,000	6.07
Georgia	70,500 r	461,000 r	6.54 r	75,200	519,000	6.91
Hawaii	6,380	65,100	10.20	5,690	63,400	11.15
Idaho	3,420	15,800	4.62	3,160	15,700	4.95
Illinois[4]	75,200	431,000	5.73	76,000	453,000	5.96
Indiana	55,500	268,000	4.83	50,500	235,000	4.65
Iowa	35,900	194,000	5.41	35,600	207,000	5.82
Kansas	21,300 r	106,000 r	4.98 r	20,600	111,000	5.37
Kentucky	50,600	302,000	5.97	53,600	332,000	6.20
Louisiana[5]	W	W	11.06	W	W	10.99
Maine	4,010	23,400	5.85	3,620	23,100	6.39
Maryland[6]	22,300	141,000	6.31	26,200	165,000	6.28
Massachusetts	13,800	111,000 r	8.04 r	13,000	111,000	8.59
Michigan[7]	41,100	171,000 r	4.16 r	33,600	124,000	3.70
Minnesota	9,960	57,600	5.78	9,880	61,800	6.25
Mississippi[8]	2,620	27,900	10.64	2,770	29,300	10.60
Missouri	73,200 r	376,000 r	5.14	72,200	436,000	6.04
Montana	2,370	10,000	4.23	3,060	11,500	3.76
Nebraska	7,220	53,200	7.36	6,960	49,200	7.07
Nevada	8,010	41,900	5.23	7,830	48,500	6.20
New Hampshire	4,810 r	24,500 r	5.08 r	4,110	21,400	5.20
New Jersey	20,500	118,000 r	5.78 r	24,800	170,000	6.86
New Mexico	3,680	23,300	6.35	3,760	26,100	6.95
New York	56,500	391,000	6.92	53,700	352,000	6.56
North Carolina	62,900	451,000	7.18	67,100	524,000	7.81
North Dakota[9]	W	W	5.31 r	W	W	4.48
Ohio	72,000 r	326,000 r	4.53	70,500	331,000	4.70
Oklahoma	45,000	196,000	4.34	40,200	193,000	4.80
Oregon	19,800	101,000	5.10	22,100	118,000	5.33
Pennsylvania	102,000	578,000 r	5.69 r	105,000	597,000	5.71
Rhode Island	1,780	11,400	6.41	1,340	10,700	8.00
South Carolina	25,700	165,000	6.43	27,300	184,000	6.75
South Dakota	6,780	33,600	4.96	6,880	24,700	3.58
Tennessee	54,900	330,000	6.00	55,100	354,000	6.42
Texas	109,000 r	528,000 r	4.86 r	126,000	642,000	5.09
Utah	7,640	38,100	4.99	7,820	36,200	4.62
Vermont	4,360	21,300	4.88	4,290	22,600	5.25
Virginia	58,900	395,000	6.70	67,200	486,000	7.23
Washington	13,700	79,900	5.82	12,000	73,500	6.13
West Virginia	14,400	63,400	4.40	14,100	68,700	4.88
Wisconsin	36,200	151,000	4.17	36,600	196,000	5.36
Wyoming	4,450 r	20,500 r	4.60 r	5,030	24,800	4.92
Other	11,400 r	91,800 r	8.04 r	12,500	108,000	8.64
Total or average	1,510,000 r	8,650,000 r	5.71	1,530,000	9,160,000	5.98

See footnotes at end of table.

TABLE 4--Continued

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE[1, 2]

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[r]Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]To avoid disclosing company proprietary data, certain State totals do not include all kinds of stone produced within the State; the portion not shown has been included with "Other."

[3]Data derived, in part, from Alaska Division of Geological and Geophysical Surveys information. Excludes granite, shell, and limestone-dolomite (2002).

[4]Excludes sandstone.

[5]A significant amount of sold or used material was shipped in from other States. Excludes sandstone, limestone, and miscellaneous stone.

[6]Excludes marble, shell, and traprock.

[7]Excludes calcareous marl and miscellaneous stone.

[8]A significant amount of sold or used material was shipped in from other States.

[9]Excludes granite (2002), limestone, miscellaneous stone, and volcanic cinder and scoria.

TABLE 5

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY QUARTER AND GEOGRAPHIC DIVISION[1, 2]

Region/division	Quantity 1st quarter (thousand metric tons)	Percentage change[3]	Quantity 2d quarter (thousand metric tons)	Percentage change[3]	Quantity 3d quarter (thousand metric tons)	Percentage change[3]	Quantity 4th quarter (thousand metric tons)	Percentage change[3]	Total[4] (thousand metric tons)	Value[4] (thousands)
Northeast:										
New England	3,290	-2.1	11,600	-0.1	13,300	-3.7	11,700	15.8	39,800	$272,000
Middle Atlantic	19,100	-18.2	51,000	-4.4	59,400	-2.0	50,100	20.3	180,000	1,120,000
Midwest:										
East North Central	31,500	-8.4	77,300	-2.7	93,300	0.7	81,800	10.5	284,000	1,370,000
West North Central	24,500	-5.4	43,500	1.0	46,200	-3.8	35,500	-8.2	150,000	811,000
South:										
South Atlantic	72,200	-4.5	97,400	-1.8	106,000	11.3	94,200	15.9	369,000	2,270,000
East South Central	31,000	9.7	41,300	1.3	46,300	4.1	41,100	7.7	160,000	961,000
West South Central	41,000	-9.7	48,600	-4.4	50,700	0.6	43,900	4.4	184,000	877,000
West:										
Mountain	8,990	-6.5	15,000	-3.6	14,700	-5.4	11,400	-9.9	50,100	297,000
Pacific[5]	21,200	3.2	24,900	-6.8	26,100	-5.2	24,200	-7.1	96,500	580,000
Grand total or average[4]	253,000	-5.1	411,000	-2.4	456,000	1.7	394,000	8.0	1,520,000 [6]	8,710,000 [6]

[1]As published in the "Crushed Stone and Sand and Gravel in the Fourth Quarter of 2003" Mineral Industry Surveys.

[2]Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

[3]All percentage changes are calculated by using unrounded totals. Percentage changes are based on the corresponding quarter of the previous year.

[4]Data may not add to totals shown because of independent rounding and differences between projected totals by States and region.

[5]Does not include Alaska and Hawaii.

[6]Includes Alaska, Hawaii, and "Other" which are detailed in table 6.

TABLE 6

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY QUARTER AND STATE[1, 2]

State	Quantity 1st quarter (thousand metric tons)	Percentage change[3]	Quantity 2d quarter (thousand metric tons)	Percentage change[3]	Quantity 3d quarter (thousand metric tons)	Percentage change[3]	Quantity 4th quarter (thousand metric tons)	Percentage change[3]	Total[4] (thousand metric tons)	Value[4] (thousands)
Alabama	10,700	18.0	13,200	13.3	14,600	18.1	12,700	23.0	51,200	$292,000
Alaska	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	1,300	7,190
Arizona	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	10,700	62,100
Arkansas	5,330	-15.4	8,120	-5.3	9,390	4.3	8,000	15.6	30,800	162,000
California	13,800	-3.7	16,300	-10.4	16,300	-7.5	16,000	-7.3	62,400	400,000
Colorado	2,170	-15.6	4,290	-3.3	3,700	-14.2	2,250	-38.1	12,400	81,200
Connecticut	782	14.3	3,080	8.5	3,550	-5.6	3,370	17.9	10,800	85,800
Delaware	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Florida	23,100	-4.2	25,900	2.8	25,500	3.6	21,000	-11.8	95,500	572,000
Georgia[6]	15,500	-3.9	18,900	-1.7	20,800	14.8	18,700	19.3	73,800 [6]	458,000 [6]
Hawaii	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	6,500	62,700
Idaho	381	-46.0	1,070	-26.4	640	13.3	821	17.4	2,910	13,700
Illinois	8,550	-4.7	19,400	-7.3	24,700	0.4	22,700	9.8	75,300 [6]	440,000 [6]
Indiana	7,310	-11.1	15,600	2.1	17,300	-5.0	15,900	14.5	56,100	277,000
Iowa	3,910	-15.4	10,800	-1.2	10,700	-0.7	8,440	-12.5	33,800	187,000
Kansas	3,960	-11.9	5,730	-2.5	5,680	-1.7	5,420	-1.5	20,800	105,000
Kentucky	9,800	9.6	12,800	7.1	14,400	-6.4	13,100	-8.8	50,100	305,000
Louisiana	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)
Maine	579	9.5	912	-21.8	1,950	38.4	1,250	38.9	4,690	26,000
Maryland	3,310	-25.4	6,300	-2.4	6,380	-0.4	6,760	34.9	22,700 [6]	135,000 [6]
Massachusetts	1,230	-14.7	4,110	-2.4	4,610	-1.1	4,010	15.7	14,000	103,000
Michigan	2,730	-12.5	11,700	-0.7	14,500	4.8	11,200	-8.9	40,200 [6]	170,000 [6]
Minnesota	446	45.7	2,760	-8.8	4,160	1.1	2,120	-15.3	9,490	56,000
Mississippi	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	2,300	25,000
Missouri	14,600	-0.3	19,900	8.3	21,200	-8.5	16,300	-9.1	71,900	377,000
Montana	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	2,440	9,730
Nebraska	1,310	-5.9	1,980	-7.8	1,970	1.8	1,690	-2.9	6,960	52,300
Nevada	1,880	1.0	2,490	16.5	2,410	8.9	2,440	34.7	9,210	45,500
New Hampshire	304	0.7	1,260	-22.2	1,040	-37.3	1,150	0.1	3,750	19,500
New Jersey	3,280	10.3	7,080	40.5	8,310	0.2	7,820	87.2	26,500	156,000
New Mexico	920	11.0	1,090	--	1,190	8.2	955	43.4	4,150	24,900
New York	3,960	-33.3	15,100	-10.0	19,700	-0.7	13,000	-6.6	51,800	366,000
North Carolina	11,900	-3.1	17,400	-9.0	20,000	15.1	17,400	23.4	66,700	452,000
North Dakota	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)
Ohio	8,650	-8.2	20,100	-5.9	24,200	1.6	21,700	20.4	74,700	320,000
Oklahoma	9,220	-16.3	12,600	6.5	14,000	13.6	11,500	15.9	47,300	195,000
Oregon	4,730	41.0	5,040	-3.3	6,390	0.5	5,090	4.7	21,300	103,000
Pennsylvania	12,600	-16.0	29,200	-8.1	30,800	-3.8	30,100	29.7	103,000	596,000
Rhode Island	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	1,980	12,000
South Carolina	6,060	5.0	7,050	-4.3	7,520	9.9	7,010	23.1	27,600	168,000

See footnotes at end of table.

TABLE 6--Continued

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY QUARTER AND STATE[1, 2]

State	Quantity 1st quarter (thousand metric tons)	Percentage change[3]	Quantity 2d quarter (thousand metric tons)	Percentage change[3]	Quantity 3d quarter (thousand metric tons)	Percentage change[3]	Quantity 4th quarter (thousand metric tons)	Percentage change[3]	Total[4] (thousand metric tons)	Value[4] (thousands)
South Dakota	673	-2.5	2,170	-1.4	2,430	-1.0	1,420	-1.0	6,690	33,900
Tennessee	9,910	2.1	14,600	-9.4	16,400	2.3	14,600	11.3	55,400	339,000
Texas	25,900	-7.5	28,000	-7.7	27,700	-6.6	24,400	-2.0	106,000	520,000
Utah	1,270	12.9	2,040	7.2	2,550	-1.0	1,810	-10.8	7,680	39,100
Vermont	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	5,660	26,100
Virginia	11,100	-4.0	17,800	3.8	19,800	19.8	17,500	27.6	66,200	419,000
Washington	2,710	-7.5	3,620	15.9	3,410	-2.1	3,130	-25.2	12,900	76,600
West Virginia	2,040	6.3	3,880	-1.9	4,940	5.0	4,770	24.6	15,600	64,900
Wisconsin	4,480	-3.9	11,400	17.9	14,300	11.7	9,820	8.7	40,000	158,000
Wyoming	662	-19.4	1,230	-19.7	1,350	-15.2	1,080	14.6	4,320	21,000
Other	XX	XX	XX	XX	XX	XX	XX	XX	11,500	90,300
Total	XX	XX	XX	XX	XX	XX	XX	XX	1,520,000	8,710,000

XX Not applicable. -- Zero.

[1]As published in the "Crushed Stone and Sand and Gravel in the Fourth Quarter of 2003" Mineral Industry Surveys.

[2]Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

[3]All percentage changes are calculated by using unrounded totals. Percentage changes are based on the corresponding quarter of the previous year.

[4]Data may not add to totals shown because of independent rounding and differences between projected totals by States and regions.

[5]State not included in quarterly survey.

[6]To avoid disclosing proprietary data, data for certain States do not include all types of stone produced within the State; the portion not shown has been included with "Other."

[7]Owing to the low number of companies, no production estimates by quarter were generated.

TABLE 7A
CRUSHED STONE SOLD OR USED IN THE UNITED STATES IN 2003,
BY SIZE OF OPERATION[1]

	U.S. total			
Size range (metric tons)	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total
Less than 25,000	394	12.5	3,280	0.2
25,000 to 49,999	213	6.8	7,140	0.5
50,000 to 99,999	336	10.7	22,500	1.5
100,000 to 199,999	420	13.3	55,600	3.6
200,000 to 299,999	288	9.1	64,500	4.2
300,000 to 399,999	235	7.5	74,000	4.8
400,000 to 499,999	222	7.0	90,100	5.9
500,000 to 599,999	158	5.0	78,800	5.1
600,000 to 699,999	126	4.0	74,800	4.9
700,000 to 799,999	119	3.8	81,700	5.3
800,000 to 899,999	87	2.8	66,900	4.4
900,000 to 999,999	59	1.9	50,700	3.3
1,000,000 to 1,499,999	245	7.8	269,000	17.6
1,500,000 to 1,999,999	109	3.5	170,000	11.1
2,000,000 to 2,499,999	64	2.0	129,000	8.4
2,500,000 to 4,999,999	57	1.8	178,000	11.6
5,000,000 and more	17	0.5	115,000	7.5
Total	3,150	100.0	1,530,000	100.0

[1]Data are rounded to no more than three significant digits except "Number of operations;" may not add to totals shown.

TABLE 7B

CRUSHED STONE SOLD OR USED IN THE UNITED STATES IN 2003, BY REGION AND SIZE OF OPERATION[1]

Size range (metric tons)	Northeast				Midwest			
	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total
Less than 25,000	27	6.6	270	0.1	131	12.7	1,240	0.3
25,000 to 49,999	17	4.2	579	0.3	99	9.6	3,340	0.8
50,000 to 99,999	30	7.3	2,130	1.0	139	13.5	9,350	2.2
100,000 to 199,999	47	11.5	6,240	2.8	141	13.6	18,300	4.4
200,000 to 299,999	42	10.3	9,370	4.3	99	9.6	22,100	5.3
300,000 to 399,999	42	10.3	13,100	6.0	76	7.4	23,800	5.7
400,000 to 499,999	47	11.5	19,000	8.6	67	6.5	27,300	6.5
500,000 to 599,999	25	6.1	12,600	5.7	47	4.5	23,400	5.6
600,000 to 699,999	18	4.4	10,700	4.9	38	3.7	22,500	5.4
700,000 to 799,999	19	4.6	12,900	5.9	28	2.7	19,000	4.5
800,000 to 899,999	15	3.7	11,400	5.2	28	2.7	21,700	5.2
900,000 to 999,999	8	2.0	6,910	3.1	15	1.5	12,800	3.1
1,000,000 to 1,499,999	39	9.5	42,100	19.1	62	6.0	68,200	16.3
1,500,000 to 1,999,999	12	2.9	18,200	8.3	30	2.9	46,400	11.1
2,000,000 to 2,499,999	12	2.9	24,000	10.9	19	1.8	39,200	9.3
2,500,000 to 4,999,999	8	2.0	24,900	11.3	9	0.9	29,500	7.0
5,000,000 and more	1	0.2	5,410	2.5	5	0.5	31,400	7.5
Total	409	100.0	220,000	100.0	1,030	100.0	420,000	100.0

	South				West			
	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total
Less than 25,000	72	6.5	542	0.1	164	27.3	1,220	0.8
25,000 to 49,999	37	3.3	1,260	0.2	60	10.0	1,960	1.3
50,000 to 99,999	80	7.2	5,360	0.7	87	14.5	5,610	3.8
100,000 to 199,999	138	12.5	19,400	2.6	94	15.7	11,700	7.9
200,000 to 299,999	101	9.1	22,600	3.0	46	7.7	10,400	7.0
300,000 to 399,999	84	7.6	26,500	3.6	33	5.5	10,500	7.1
400,000 to 499,999	80	7.2	32,600	4.4	28	4.7	11,300	7.6
500,000 to 599,999	69	6.2	34,500	4.6	17	2.8	8,260	5.5
600,000 to 699,999	57	5.1	33,900	4.6	13	2.2	7,770	5.2
700,000 to 799,999	65	5.9	45,000	6.1	7	1.2	4,770	3.2
800,000 to 899,999	39	3.5	30,000	4.0	5	0.8	3,870	2.6
900,000 to 999,999	31	2.8	26,700	3.6	5	0.8	4,300	2.9
1,000,000 to 1,499,999	123	11.1	137,000	18.4	21	3.5	22,600	15.2
1,500,000 to 1,999,999	57	5.1	89,300	12.0	10	1.7	15,900	10.7
2,000,000 to 2,499,999	30	2.7	60,000	8.1	3	0.5	6,240	4.2
2,500,000 to 4,999,999	34	3.1	106,000	14.3	6	1.0	17,300	11.6
5,000,000 and more	10	0.9	73,400	9.9	1	0.2	5,300	3.6
Total	1,110	100.0	744,000	100.0	600	100.0	149,000	100.0

[1]Data are rounded to no more than three significant digits except "number of operations;" may not add to totals shown.

TABLE 8
CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS
IN THE UNITED STATES IN 2003, BY STATE[1]

(Thousand metric tons and thousand dollars)

State	Limestone		Dolomite	
	Quantity	Value	Quantity	Value
Alabama	40,100	236,000	W	W
Arizona	5,570	21,900	--	--
Arkansas	9,060	43,900	W	W
California	27,500	131,000	250	1,570
Colorado	1,940	12,200	W	W
Connecticut	W [2]	W [2]	W	W
Florida	94,400 [2]	571,000 [2]	1,880	12,500
Georgia	8,770	61,800	--	--
Hawaii	W	W	--	--
Idaho	W	W	--	--
Illinois	60,700 [2]	356,000 [2]	15,200	95,300
Indiana	43,100 [2]	189,000 [2]	7,390	45,900
Iowa	33,700 [2]	194,000 [2]	W	W
Kansas	20,100	109,000	--	--
Kentucky	52,900 [2]	327,000 [2]	W	W
Louisiana[3]	W	W	--	--
Maine	1,350	7,600	--	--
Maryland	18,700 [2]	116,000 [2]	--	--
Massachusetts	1,050 [2]	15,400 [2]	W	W
Michigan	27,600	98,300	5,980	25,200
Minnesota	3,830	21,200	W	W
Mississippi[3]	2,770	29,300	--	--
Missouri	67,200 [2]	358,000 [2]	3,330	18,400
Montana	2,430	9,900	--	--
Nebraska	6,960	49,200	--	--
Nevada	3,800	14,700	W	W
New Jersey	W	W	--	--
New Mexico	2,310	12,400	--	--
New York	30,100 [2]	191,000 [2]	11,300	78,900
North Carolina	W	W	W	W
North Dakota	W	W	--	--
Ohio	61,500 [2]	294,000 [2]	8,610	35,800
Oklahoma	33,300 [2]	163,000 [2]	W	W
Oregon	W	W	--	--
Pennsylvania	61,600 [2]	350,000 [2]	14,300	79,100
Rhode Island	W	W	--	--
South Carolina	W	W	--	--
South Dakota	3,050	10,900	--	--
Tennessee	53,100 [2]	340,000 [2]	W	W
Texas	121,000	614,000	W	W
Utah	4,090	19,400	W	W
Vermont	W [2]	W [2]	W	W
Virginia	18,500 [2]	127,000 [2]	3,970	22,600
Washington	1,640 [2]	9,830 [2]	W	W
West Virginia	12,600	60,200	--	--
Wisconsin	30,900 [2]	169,000 [2]	1,050	4,740
Wyoming	1,790 [2]	10,400 [2]	--	--
Other	15,400	116,000	15,900	106,000
Total	984,000	5,460,000	89,100	526,000

W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes limestone-dolomite reported with no distinction between the two kinds of stone.

[3]A significant amount of sold or used material was shipped in from other States.

TABLE 9

CRUSHED GRANITE, TRAPROCK, AND SANDSTONE AND QUARTZITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY STATE[1]

(Thousand metric tons and thousand dollars)

State	Granite		Traprock		Sandstone and quartzite[2]	
	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	W	W	--	--	1,820	10,000
Alaska[3]	W	W	171	1,070	--	--
Arizona	2,540	15,300	W	W	W	W
Arkansas	9,460	44,400	--	--	9,330	47,100
California	11,000	87,300	10,000	82,800	2,140	24,800
Colorado	4,960	32,200	--	--	W	W
Connecticut	314	2,520	W	W	--	--
Georgia	63,200	434,000	--	--	W	W
Hawaii	--	--	4,900	56,000	--	--
Idaho	362	1,350	1,690	7,710	W	W
Illinois	--	--	--	--	W	W
Kansas	--	--	--	--	W	W
Louisiana[4]	--	--	--	--	W	W
Maine	1,320	9,300	--	--	W	W
Maryland	7,390	48,000	W	W	W	W
Massachusetts	W	W	6,560	53,900	--	--
Michigan	--	--	--	--	W	W
Minnesota	W	W	--	--	W	W
Missouri	W	W	W	W	--	--
Montana	W	W	W	W	W	W
Nevada	W	W	W	W	--	--
New Hampshire	1,680	7,920	2,430	13,500	--	--
New Jersey	10,100	63,200	14,300	105,000	--	--
New Mexico	W	W	--	--	--	--
New York	W	W	W	W	2,090	17,100
North Carolina	49,800	398,000	7,050	50,900	W	W
Ohio	--	--	--	--	W	W
Oklahoma	W	W	--	--	3,030	14,000
Oregon	W	W	18,900	101,000	--	--
Pennsylvania	4,680	26,700	4,690	28,200	11,500	67,700
Rhode Island	1,310	10,600	W	W	--	--
South Carolina	20,500	151,000	--	--	--	--
South Dakota	W	W	--	--	3,540	12,700
Tennessee	W	W	--	--	W	W
Texas	W	W	W	W	749	4,190
Utah	--	--	--	--	769	4,690
Vermont	346	W	--	--	96	457
Virginia	26,700	202,000	15,900	117,000	W	W
Washington	925	5,250	8,100	50,900	W	W
West Virginia	--	--	--	--	1,480	8,520
Wisconsin	1,780	13,200	W	W	W	W
Wyoming	W	W	W	W	--	--
Other	23,600	192,000	20,700	139,000	16,800	129,000
Total	242,000	1,740,000	115,000	807,000	53,300	340,000

W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

[3]Data derived, in part, from Alaska Division of Geological and Geophysical Surveys information.

[4]A significant amount of sold or used material was shipped in from other States.

TABLE 10
CRUSHED CALCAREOUS MARL AND MARBLE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY STATE[1]

(Thousand metric tons and thousand dollars)

State	Calcareous marl		Marble	
	Quantity	Value	Quantity	Value
Alabama	--	--	W	W
Arizona	--	--	W	W
California	--	--	W	W
Georgia	--	--	W	W
Maryland	--	--	W	W
Michigan	W	W	--	--
New York	--	--	W	W
Pennsylvania	--	--	184	1,150
South Carolina	3,950	13,700	W	W
Texas	W	W	W	W
Vermont	--	--	W	W
Virginia	--	--	W	W
Washington	--	--	W	W
Wyoming	--	--	W	W
Other	1,170	4,780	8,710	50,200
Total	5,120	18,500	8,890	51,300

W Withheld to avoid disclosing company proprietary data, included in "Other." -- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 11

CRUSHED VOLCANIC CINDER AND SCORIA AND CRUSHED MISCELLANEOUS STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY STATE[1]

(Thousand metric tons and thousand dollars)

State	Volcanic cinder and scoria		Miscellaneous stone[2]	
	Quantity	Value	Quantity	Value
Alabama	--	--	W	W
Alaska[3]	--	--	2,470	14,300
Arizona	W	W	1,020	5,040
Arkansas	--	--	1,010	4,660
California	175	1,640	4,360	36,900
Colorado	W	W	W	W
Connecticut	--	--	W	W
Hawaii	W	W	W	W
Idaho	--	--	172	715
Illinois	--	--	W	W
Louisiana[4]	--	--	W	W
Maine	--	--	404	2,750
Maryland	--	--	W	W
Massachusetts	--	--	W	W
Michigan	--	--	W	W
Montana	--	--	W	W
Nevada	W	W	945	9,320
New Jersey	--	--	W	W
New Mexico	168	1,290	W	W
New York	--	--	389	2,640
North Carolina	W	W	W	W
North Dakota	W	W	23	84
Oklahoma	--	--	W	W
Oregon	41	203	1,880	8,940
Pennsylvania	--	--	7,620	44,300
South Dakota	--	--	W	W
Texas	--	--	1,930	9,860
Utah	W	W	557	3,680
Vermont	--	--	W	W
Virginia	--	--	704	6,940
Washington	W	W	W	W
Wyoming	W	W	295	1,550
Other	1,790	10,500	6,660	37,800
Total	2,170	13,600	30,400	189,000

W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes slate.

[3]Data derived, in part, from Alaska Division of Geological and Geophysical Surveys information.

[4]A significant amount of sold or used material was shipped in from other States.

TABLE 12

KIND OF CRUSHED STONE PRODUCED AND/OR DISTRIBUTED IN THE UNITED STATES IN 2003, BY STATE

State	Limestone	Dolomite	Marble	Calcareous marl	Shell	Granite	Traprock	Sandstone	Quartzite	Slate	Volcanic cinder and scoria	Miscellaneous
Alabama	X	X	X			X		X		X		X
Alaska[1]					X	X	X					X
Arizona	X		X			X	X	X	X		X	X
Arkansas	X	X				X		X	X	X		X
California	X	X	X		X	X	X	X	X	X	X	X
Colorado	X	X				X		X	X		X	X
Connecticut	X	X				X	X					X
Florida	X	X			X							
Georgia	X		X			X			X			X
Hawaii	X						X				X	X
Idaho	X				X	X	X		X			X
Illinois	X	X						X				X
Indiana	X	X										
Iowa	X	X							X			
Kansas	X											
Kentucky	X	X						X				X
Louisiana	X								X	X		X
Maine	X					X						X
Maryland	X		X		X	X	X	X				X
Massachusetts	X	X				X	X					X
Michigan	X	X		X				X				
Minnesota	X	X				X			X			
Mississippi	X											
Missouri	X	X				X	X					
Montana	X					X	X	X	X			X
Nebraska	X											
Nevada	X	X				X	X				X	X
New Hampshire						X	X					
New Jersey	X					X	X					X
New Mexico	X					X					X	X
New York	X	X	X			X	X	X		X		X
North Carolina	X	X				X	X		X	X	X	X
North Dakota	X										X	X
Ohio	X	X						X				
Oklahoma	X	X				X		X	X			X
Oregon	X					X	X				X	X
Pennsylvania	X	X	X			X	X	X	X	X		X
Rhode Island	X					X	X					
South Carolina	X		X	X		X						
South Dakota	X					X			X	X		
Tennessee	X	X				X		X				
Texas	X	X	X	X	X	X	X	X	X			X
Utah	X	X						X	X		X	X
Vermont	X	X	X			X			X	X		
Virginia	X	X				X	X	X	X	X		X
Washington	X	X	X			X	X	X		X	X	X
West Virginia	X							X				
Wisconsin	X	X				X	X	X	X			X
Wyoming	X		X			X	X				X	X

[1]Data derived, in part, from Alaska Division of Geological and Geophysical Surveys information.

TABLE 13

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY USE[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1 1/2 inch):			
Macadam	5,760	$36,500	$6.33
Riprap and jetty stone	17,400	145,000	8.34
Filter stone	7,700	57,600	7.48
Other coarse aggregate	17,500	109,000	6.24
Coarse aggregate, graded:			
Concrete aggregate, coarse	79,100	641,000	8.11
Bituminous aggregate, coarse	48,500	381,000	7.85
Bituminous surface-treatment aggregate	17,300	134,000	7.75
Railroad ballast	9,460	67,800	7.16
Other graded coarse aggregate	87,300	623,000	7.14
Fine aggregate (-3/8 inch):			
Stone sand, concrete	14,400	102,000	7.05
Stone sand, bituminous mix or seal	14,700	102,000	6.95
Screening, undesignated	24,700	140,000	5.67
Other fine aggregate	35,300	225,000	6.39
Coarse and fine aggregates:			
Graded road base or subbase	152,000	815,000	5.38
Unpaved road surfacing	17,500	106,000	6.03
Terrazzo and exposed aggregate	1,210	14,100	11.64
Crusher run or fill or waste	25,300	134,000	5.30
Roofing granules	4,450	72,600	16.34
Other coarse and fine aggregates	71,500	483,000	6.76
Other construction materials[2]	7,860	53,600	6.82
Agricultural:			
Agricultural limestone	11,400	73,800	6.49
Poultry grit and mineral food	1,400	13,400	9.53
Other agricultural uses	259	1,960	7.55
Chemical and metallurgical:			
Cement manufacture	90,400	331,000	3.66
Lime manufacture	22,300	135,000	6.05
Dead-burned dolomite manufacture	496	2,810	5.67
Flux stone	2,860	13,300	4.64
Chemical stone	80	458	5.73
Glass manufacture	530	4,020	7.59
Sulfur oxide removal	2,350	16,200	6.91
Special:			
Mine dusting or acid water treatment	155	2,200	14.20
Asphalt fillers or extenders	1,530	14,600	9.55
Whiting or whiting substitute	289	6,480	22.42
Other fillers or extenders	3,430	38,000	11.09
Other miscellaneous uses:			
Lightweight aggregrate (slate)	150	3,400	22.67
Abrasives	W	W	10.73
Flour (slate)	W	W	50.39
Sugar refining	W	W	5.51
Waste material	W	W	3.20
Other specified uses not listed	9,440	54,000	5.73
Unspecified:[3]			
Reported	499,000	2,820,000	5.64
Estimated	227,000	1,190,000	5.22
Grand total or average	1,530,000	9,160,000	5.98

W Withheld to avoid disclosing company proprietary data; included in "Grand total."

[1]Data are rounded to no more than three significant digits except unit values; may not add to totals shown.

[2]Includes building products, drain fields, and pipe bedding.

[3]Reported and estimated production without a breakdown by end use.

TABLE 14

CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Limestone[2]		Dolomite	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1 1/2 inch):				
Macadam	3,660	22,900	889	6,160
Riprap and jetty stone	9,700	62,200	930	9,130
Filter stone	4,710	33,500	792	4,990
Other coarse aggregate	12,700	76,700	1,000	4,990
Coarse aggregate, graded:				
Concrete aggregate, coarse	42,200	334,000	5,390	37,700
Bituminous aggregate, coarse	28,500	210,000	3,950	28,400
Bituminous surface-treatment aggregate	8,620	62,900	1,850	16,500
Railroad ballast	1,260	7,490	731	4,640
Other graded coarse aggregate	63,900	431,000	4,590	30,800
Fine aggregate (-3/8 inch):				
Stone sand, concrete	5,420	33,600	789	4,600
Stone sand, bituminous mix or seal	6,300	40,800	1,680	11,000
Screening, undesignated	15,200	79,600	1,330	6,110
Other fine aggregate	26,800	168,000	1,300	8,420
Coarse and fine aggregates:				
Graded road base or subbase	92,200	445,000	10,700	57,600
Unpaved road surfacing	12,800	75,900	1,530	8,860
Terrazzo and exposed aggregate	55	585	--	--
Crusher run or fill or waste	16,700	87,300	1,960	10,600
Roofing granules	421	2,780	--	--
Other coarse and fine aggregates	38,400	273,000	7,770	42,400
Other construction materials[3]	4,200	24,900	633	3,800
Agricultural:				
Agricultural limestone	10,000	58,400	1,380	15,400
Poultry grit and mineral food	1,270	12,700	W	W
Other agricultural uses	209	1,610	18	160
Chemical and metallurgical:				
Cement manufacture	84,500	311,000	129	241
Lime manufacture	20,100	127,000	2,270	7,810
Dead-burned dolomite manufacture	W	W	W	W
Flux stone	1,100	5,610	1,490	6,410
Chemical stone	80	458	--	--
Glass manufacture	409	3,050	--	--
Sulfur oxide removal	2,350	16,200	--	--
Special:				
Mine dusting or acid water treatment	155	2,200	--	--
Asphalt fillers or extenders	746	7,780	W	W
Whiting or whiting substitute	230	6,140	W	W
Other fillers or extenders	2,410	30,900	W	W
Other miscellaneous uses:				
Abrasives	W	W	--	--
Sugar refining	W	W	--	--
Waste material	W	W	--	--
Other specified uses not listed	8,410	46,000	266	1,540
Unspecified:[4]				
Reported	300,000	1,550,000	27,200	152,000
Estimated	158,000	801,000	7,200	38,800
Grand total or average	984,000	5,460,000	89,100	526,000

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes a minor amount of limestone-dolomite reported without a distinction between the two.

[3]Includes building products, drain fields, and pipe bedding.

[4]Reported and estimated production without a breakdown by end use.

TABLE 15

CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN 2003, BY STATE AND USE[1]

(Thousand metric tons and thousand dollars)

State	Concrete aggregate		Bituminous aggregate		Roadstone and coverings		Riprap and railroad ballast		Other constructions uses	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	2,640	15,600	9,580	62,000	2,210	14,600	290	1,310	6,140	38,900
Arizona	--	--	--	--	W	W	--	--	3	8
Arkansas	535	3,350	747	5,030	2,040	11,400	112	703	1,390	5,960
California	W	W	382	3,160	162	911	--	--	268	2,390
Colorado	--	--	--	--	27	124	W	W	--	--
Connecticut	W	W	35	595	W	W	--	--	3	23
Florida	10,300	79,000	9,650	101,000	15,400	58,800	355	2,140	7,310	45,700
Georgia	1,310	10,400	1,110	8,660	1,020	6,220	W	W	289	1,480
Hawaii	--	--	--	--	--	--	--	--	--	--
Idaho	--	--	--	--	W	W	--	--	63	574
Illinois	12,500	88,800	10,400	77,800	19,900	106,000	2,360	23,600	7,960	40,100
Indiana	5,060	26,600	8,600	44,100	4,840	27,300	W	W	3,660	20,100
Iowa	1,590	14,000	872	6,540	6,360	41,900	154	1,900	2,360	13,000
Kansas	342	2,710	1,460	9,930	1,050	5,780	82	936	1,290	7,540
Kentucky	3,710	25,300	10,300	76,000	5,770	40,400	203	1,440	4,370	25,900
Louisiana[2]	W	W	W	W	W	W	--	--	W	W
Maine	W	W	--	--	--	--	W	W	--	--
Maryland	545	4,040	910	6,670	634	5,900	W	W	2,450	14,600
Massachusetts	--	--	--	--	W	W	--	--	W	W
Michigan	3,440	12,600	1,940	11,600	3,560	16,400	W	W	331	1,450
Minnesota	166	1,060	989	9,160	281	1,440	53	774	2,360	13,800
Mississippi[2]	W	W	W	W	W	W	--	--	355	5,560
Missouri	4,460	26,100	6,680	40,500	7,430	35,100	3,620	12,400	5,390	28,300
Montana	W	W	--	--	W	W	W	W	10	52
Nebraska	W	W	W	W	350	3,300	176	1,660	368	3,080
Nevada	W	W	--	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--	--	--	--
New Mexico	--	--	--	--	W	W	--	--	--	--
New York	2,680	22,100	4,590	34,700	3,930	29,700	W	W	5,260	31,900
North Carolina	W	W	W	W	W	W	W	W	90	1,010
North Dakota	--	--	--	--	--	--	W	W	--	--
Ohio	3,750	20,500	4,220	25,800	9,910	44,800	612	3,740	5,490	26,900
Oklahoma	1,380	8,620	6,980	43,300	1,250	6,540	496	3,430	6,790	30,200
Oregon	--	--	--	--	--	--	W	W	--	--
Pennsylvania	3,910	25,800	10,800	68,700	9,770	56,100	870	5,550	6,950	35,700
Rhode Island	--	--	--	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--	--
Tennessee	3,590	27,400	12,500	87,700	9,870	55,200	1,010	6,920	5,010	32,600
Texas	14,400	131,000	11,500	60,900	18,700	66,500	W	W	6,700	43,700
Utah	--	--	W	W	143	573	W	W	283	1,820
Vermont	22	228	128	1,460	W	W	W	W	37	267
Virginia	2,610	20,300	3,060	29,000	3,090	18,200	473	4,000	4,230	25,600
Washington	--	--	--	--	W	W	--	--	--	--
West Virginia	225	1,340	852	5,240	610	3,520	103	673	1,110	6,020
Wisconsin	1,570	8,540	502	2,670	6,350	33,700	W	W	2,240	47,200
Wyoming	W	W	W	W	W	W	W	W	122	288
Total	80,700	576,000	119,000	822,000	135,000	691,000	11,000	71,200	90,700	552,000
Total withheld	1,090	11,100	1,790	19,900	861	7,600	322	2,790	1,470	17,900
Grand total	81,800	587,000	121,000	842,000	135,000	698,000	11,300	74,000	92,100	570,000

See footnotes at end of table.

TABLE 15--Continued

CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN 2003, BY STATE AND USE[1]

(Thousand metric tons and thousand dollars)

State	Cement manufacture		Agricultural uses		Lime manufacture		Other uses		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	2,880	10,000	W	W	W	W	15,800	88,600	(3) [4]	(3) [4]
Arizona	W	W	--	--	W	W	887	4,390	5,570	21,900
Arkansas	W	W	365	2,410	W	W	3,220	17,500	(3)	(3)
California	11,900	43,800	148	3,100	--	--	14,800	78,000	27,700	132,000
Colorado	--	--	W	W	--	--	1,920	11,800	(3)	(3)
Connecticut	--	--	--	--	--	--	1,600	12,600	(3) [4]	(3) [4]
Florida	W	W	282	1,840	--	--	50,400	284,000	96,300 [4]	584,000 [4]
Georgia	W	W	W	W	--	--	4,140	26,500	8,770	61,800
Hawaii	--	--	--	--	--	--	W	W	(3)	(3)
Idaho	370	1630	W	W	--	--	30	954	(3)	(3)
Illinois	W	W	1,920	7,160	W	W	18,700	93,700	75,900 [4]	452,000 [4]
Indiana	4,140	8,760	2,250	8,760	W	W	21,100	94,800	50,500 [4]	235,000 [4]
Iowa	--	--	1,260	6,940	W	W	22,500	120,000	(3) [4]	(3) [4]
Kansas	2,990	15,400	73	468	--	--	12,800	65,800	20,100	109,000
Kentucky	--	--	726	4,080	W	W	24,300	122,000	(3) [4]	(3) [4]
Louisiana[2]	--	--	--	--	--	--	W	W	(3)	(3)
Maine	W	W	--	--	W	W	637	4,010	1,350	7,600
Maryland	3610	21,000	W	W	--	--	10,500	63,200	18,700 [4]	116,000 [4]
Massachusetts	--	--	W	W	W	W	336	7,420	(3) [4]	(3) [4]
Michigan	5,760	10,100	150	1090	W	W	17,000	64,100	33,600	123,000
Minnesota	--	--	142	847	--	--	3,380	18,700	(3)	(3)
Mississippi[2]	--	--	W	W	--	--	1,780	13,400	2,770	29,300
Missouri	4,960	16,300	843	3,520	1,770	7,090	35,400	208,000	70,600 [4]	377,000 [4]
Montana	W	W	W	W	W	W	1,380	4,860	2,430	9,900
Nebraska	W	W	701	6,310	--	--	3,630	23,800	6,960	49,200
Nevada	W	W	W	W	W	W	1,980	7,530	(3)	(3)
New Jersey	--	--	--	--	--	--	W	W	(3)	(3)
New Mexico	W	W	--	--	--	--	1,590	7,420	2,310	12,400
New York	W	W	934	8,240	--	--	21,500	134,000	41,400 [4]	270,000 [4]
North Carolina	--	--	--	--	--	--	6,450	46,000	(3)	(3)
North Dakota	--	--	--	--	--	--	W	W	(3)	(3)
Ohio	4,590	24,700	W	W	W	W	39,300	176,000	70,100 [4]	329,000 [4]
Oklahoma	W	W	95	658	W	W	15,700	68,500	(3) [4]	(3) [4]
Oregon	W	W	--	--	--	--	W	W	(3)	(3)
Pennsylvania	6,220	21,800	379	4,220	1,360	9,590	35,600	202,000	75,900 [4]	429,000 [4]
Rhode Island	--	--	W	W	--	--	W	W	(3)	(3)
South Carolina	--	--	--	--	--	--	W	W	(3)	(3)
South Dakota	1,160	4,170	--	--	--	--	1,890	6,760	3,050	10,900
Tennessee	W	W	203	1,650	W	W	20,000	116,000	(3) [4]	(3) [4]
Texas	13,200	36,500	W	W	2,330	8,670	54,300	264,000	(3) [4]	(3) [4]
Utah	W	W	14	236	1,430	6,000	2,060	8,080	(3) [4]	(3) [4]
Vermont	--	--	--	--	--	--	1,330	7,510	(3) [4]	(3) [4]
Virginia	W	W	875	6,550	W	W	6,190	38,200	22,500 [4]	150,000 [4]
Washington	--	--	W	W	--	--	1,730	10,300	(3) [4]	(3) [4]
West Virginia	--	--	W	W	W	W	9,690	43,400	12,600	60,200
Wisconsin	--	--	317	2,780	W	W	20,600	77,100	31,900 [4]	174,000 [4]
Wyoming	W	W	--	--	--	--	564	4,860	1,790 [4]	10,400 [4]
Total	61,800	214,000	11,700	70,900	6,880	31,400	507,000	2,650,000	XX	XX
Total withheld	22,800	97,200	495	10,800	15,500	104,000	1,210	8,200	XX	XX
Grand total	84,600	311,000	12,200	81,700	22,400	135,000	508,000	2,650,000	1,070,000	5,990,000

W Withheld to avoid disclosing company proprietary data; included in "Total" and "Total withheld." XX Not applicable. -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]A significant amount of sold or used material was shipped in from other States.

[3]Withheld to avoid disclosing company proprietary data; included in "Grand total."

[4]Includes limestone-dolomite reported with no distinction between the two kinds of stone.

TABLE 16

CRUSHED MARBLE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1 1/2 inch):		
Macadam	23	167
Riprap and jetty stone	W	W
Coarse aggregate, graded:		
Concrete aggregate, coarse	W	W
Bituminous aggregate, coarse	W	W
Bituminous surface-treatment aggregate	W	W
Fine aggregate (-3/8 inch):		
Stone sand, bituminous mix or seal	W	W
Screening, undesignated	W	W
Other fine aggregate	34	193
Coarse and fine aggregates:		
Graded road base or subbase	W	W
Terrazzo and exposed aggregate	5	657
Crusher run (select material or fill)	W	W
Other coarse and fine aggregates	33	176
Other construction materials	28	113
Agricultural:		
Poultry grit and mineral food	W	W
Other agricultural uses	W	W
Special:		
Whiting or whiting extenders	W	W
Other fillers or extenders	578	4,540
Unspecified:[2]		
Reported	1,700	9,500
Estimated	5,760	30,400
Grand total	8,890	51,300

W Withheld to avoid disclosing company proprietary data; included in "Total."

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Reported and estimated production without a breakdown by end use.

TABLE 17

CRUSHED GRANITE AND TRAPROCK SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Granite		Traprock	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1 1/2 inch):				
Macadam	1,140	6,960	52	307
Riprap and jetty stone	3,400	38,200	1,280	14,400
Filter stone	675	6,330	1,260	10,500
Other coarse aggregate	1,880	14,200	1,360	10,100
Coarse aggregate, graded:				
Concrete aggregate, coarse	21,700	188,000	8,110	68,400
Bituminous aggregate, coarse	11,100	102,000	2,710	21,200
Bituminous surface-treatment aggregate	3,680	30,400	2,150	15,800
Railroad ballast	4,910	35,300	1,620	12,300
Other graded coarse aggregate	12,800	110,000	4,120	36,800
Fine aggregate (-3/8 inch):				
Stone sand, concrete	5,310	36,900	1,970	18,600
Stone sand, bituminous mix or seal	4,520	29,200	1,000	8,860
Screening, undesignated	3,980	25,200	2,990	20,400
Other fine aggregate	4,080	30,100	787	7,650
Coarse and fine aggregates:				
Graded road base or subbase	26,500	174,000	17,100	107,000
Unpaved road surfacing	983	6,920	1,790	12,200
Terrazzo and exposed aggregate	414	6,170	453	3,140
Crusher run or fill or waste	3,110	18,500	2,420	12,000
Roofing granules	3,800	68,700	W	W
Other coarse and fine aggregates	12,200	82,700	9,150	58,900
Other construction materials[2]	1,150	8,880	838	9,230
Agricultural, other agricultural uses	25	124	--	--
Special:				
Asphalt fillers or extenders	W	W	W	W
Other fillers or extenders	W	W	--	--
Other miscellaneous uses and specified uses not listed	78	852	47	252
Unspecified:[3]				
Reported	93,200	619,000	38,800	257,000
Estimated	21,200	106,000	15,100	99,000
Grand total	242,000	1,740,000	115,000	807,000

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes drain fields.

[3]Reported and estimated production without a breakdown by end use.

TABLE 18

CRUSHED SANDSTONE AND QUARTZITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY USE[1, 2]

(Thousand metric tons and thousand dollars)

Use	Sandstone		Quartzite	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1 1/2 inch):				
Riprap and jetty stone	230	1,880	58	643
Filter stone	135	1,270	W	W
Other coarse aggregate	219	1,110	176	1,160
Coarse aggregate, graded:				
Concrete aggregate, coarse	536	3,850	790	6,740
Bituminous aggregate, coarse	797	7,320	699	5,990
Bituminous surface-treatment aggregate	378	2,850	240	2,260
Railroad ballast	100	888	514	3,440
Other graded coarse aggregate	972	8,100	584	3,980
Fine aggregate (-3/8 inch):				
Stone sand, concrete	623	5,440	233	2,030
Stone sand, bituminous mix or seal	721	9,280	222	1,630
Screening, undesignated	561	5,160	158	1,300
Other fine aggregate	1,650	7,020	527	3,310
Coarse and fine aggregates:				
Graded road base or subbase	2,450	17,200	1,010	6,260
Unpaved road surfacing	111	936	W	W
Terrazzo and exposed aggregate	--	--	W	W
Crusher run or fill or waste	861	4,270	190	1,050
Other coarse and fine aggregates	1,330	9,130	692	4,270
Other construction materials[3]	100	1,290	13	57
Agricultural, poultry grit and mineral food	--	--	W	W
Chemical and metallurgical:				
Cement manufacture	W	W	109	399
Flux stone	W	W	W	W
Glass manufacture	W	W	--	--
Special, other fillers or extenders	W	W	--	--
Other miscellaneous uses:				
Abrasives	W	W	--	--
Other uses not listed	88	385	269	2,700
Unspecified:[4]				
Reported	17,100	121,000	7,080	28,500
Estimated	9,510	47,800	417	2,390
Grand total	38,500	256,000	14,000	78,100

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

[3]Includes building products.

[4]Reported and estimated production without a breakdown by end use.

TABLE 19

CRUSHED VOLCANIC CINDER AND SCORIA AND CRUSHED MISCELLANEOUS STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Volcanic cinder and scoria		Miscellaneous stone[2]	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1 1/2 inch):				
Riprap and jetty stone	--	--	1,810	18,700
Filter stone	--	--	101	725
Other coarse aggregate	--	--	160	657
Coarse aggregate, graded:				
Concrete aggregate, coarse	W	W	51	420
Bituminous aggregate, coarse	--	--	677	4,670
Bituminous surface-treatment aggregate	--	--	342	3,220
Railroad ballast	--	--	332	3,670
Other graded coarse aggregate	36	217	211	1,440
Fine aggregate (-3/8 inch):				
Stone sand, concrete	W	W	72	518
Stone sand, bituminous mix or seal	--	--	196	970
Screening, undesignated	W	W	406	2,040
Other fine aggregate	5	6	29	186
Coarse and fine aggregates:				
Graded road base or subbase	--	--	1,180	6,660
Unpaved road surfacing	W	W	248	702
Terrazzo and exposed aggregate	W	W	W	W
Crusher run or fill or waste	2	3	57	266
Roofing granules	--	--	W	W
Other coarse and fine aggregates	204	1,370	769	5,440
Other construction materials	127	1,120	773	4,240
Agricultural:				
Poultry grit and mineral food	W	W	--	--
Other agricultural uses	W	W	--	--
Chemical and metallurgical, cement manufacture	--	--	1,630	4,570
Other miscellaneous uses:				
Lightweight aggregate (slate)	--	--	150	3,400
Flour (slate)	--	--	W	W
Other specified uses not listed	108	805	170	1,430
Unspecified:[3]				
Reported	1,090	5,530	11,900	66,400
Estimated	430	3,350	8,930	56,700
Grand total	2,170	13,600	30,400	189,000

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes slate.

[3]Reported and estimated production without a breakdown by end use.

TABLE 20

RECYCLED ASPHALT SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY GEOGRAPHIC DIVISION[1]

Region/division	2002			2003		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Northeast:						
New England	139	$776 r	$5.58 r	230	$1,320	$5.73
Middle Atlantic	290	1,890 r	6.52 r	600	5,010	8.36
Midwest:						
East North Central	157	501	3.19	164	1,050	6.40
West North Central	49	230	4.69	75	336	4.48
South:						
South Atlantic	26	177 r	6.81 r	9	100	11.11
East South Central	10	108	10.80	54	1,080	20.00
West South Central	75	813	10.84	60	281	4.68
West:						
Mountain	--	--	--	12	86	7.17
Pacific	310	1,700	5.47	282	1,760	6.25
Grand total or average	1,060	6,190 r	5.87 r	1,490	11,000	7.41

rRevised. -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 21

RECYCLED ASPHALT SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE[1]

State	2002			2003		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Arkansas	--	--	--	1	$6	$6.00
California	297	$1,640	$5.53	252	1,450	5.74
Connecticut	29	129	4.45	56	263	4.70
Florida	(2) r	(2) r	4.40 r	9	100	11.11
Idaho	--	--	--	6	70	11.67
Illinois	--	--	--	54	330	6.11
Indiana	2	12	6.00	57	545	9.56
Iowa	10	37	3.70	2	8	4.00
Kansas	3	29	9.67	47	209	4.45
Kentucky	10	108	10.80	54	1,080	20.00
Louisiana[3]	16	167	10.44	--	--	--
Maine	63	209	3.32	164	957	5.84
Maryland	26	176	6.77	--	--	--
Massachusetts	40	392	9.80	3	7	2.33
Michigan	--	--	--	3	27	9.00
Minnesota	34	158	4.65	25	113	4.52
Montana	--	--	--	5	16	3.20
New Hampshire	7	46 r	6.57 r	1	5	5.00
New Jersey	25	120	4.80	211	1,280	6.08
New York	38	314	8.26	217	2,790	12.85
North Dakota	1	6	6.00	1	6	6.00
Ohio	(2) r	3 r	6.61 r	23	60	2.61
Oregon	12	54	4.50	20	266	13.30
Pennsylvania	228	1,460	6.39	172	941	5.47
Rhode Island	--	--	--	7	85	12.14
Texas	59	647	10.97	59	275	4.66
Washington	--	--	--	10	51	5.10
Wisconsin	155	486	3.14	26	87	3.35
Total or average	1,060	6,190 r	5.87 r	1,490	11,000	7.41

rRevised. -- Zero.

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

[2]Less than 1/2 unit.

[3]A significant amount of sold or used material was shipped in from other States.

TABLE 22

RECYCLED CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY GEOGRAPHIC DIVISION[1]

Region/division	2002			2003		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Northeast:						
New England	46	$355	$7.72	134	$913	$6.81
Middle Atlantic	28	141	5.04	660	3,900	5.92
Midwest:						
East North Central	1,440	7,950	5.53	2,120	10,700	5.05
West North Central	34	152	4.47	181	884	4.88
South:						
South Atlantic	375	2,590	6.91	352	2,080	5.91
East South Central	36	240	6.67	25	159	6.36
West South Central	(2) r	(2) r	15.04 r	--	--	--
West:						
Mountain	--	--	--	3	15	5.00
Pacific	585	4,420	7.56	534	3,420	6.41
Grand total or average	2,540	15,900	6.24	4,010	22,100	5.51

rRevised. -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Less than 1/2 unit.

TABLE 23

RECYCLED CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE[1]

State	2002			2003		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alabama	36	$230	$6.39	25	$159	$6.39
Alaska	--	--	--	(2)	(2)	10.24
California	426	3,210	7.54	494	3,200	6.47
Connecticut	41	338	8.24	111	815	7.34
Florida	79	640	8.10	202	1,460	7.22
Georgia	106	475	4.48	137	515	3.76
Hawaii	17	287	16.88	5	44	8.80
Idaho	--	--	--	3	15	5.00
Illinois	1,400	7,830	5.61	1,480	7,690	5.20
Indiana	--	--	--	538	2,370	4.41
Iowa	--	--	--	80	433	5.41
Louisiana[3]	(2) r	(2) r	15.04 r	--	--	--
Maine	--	--	--	6	31	5.17
Massachusetts	4	17	4.25	17	67	3.94
Minnesota	34	152	4.47	100	449	4.49
Mississippi[3]	1	10	10.00	--	--	--
New Jersey	17	82	4.82	482	3,180	6.60
New York	1	4	4.00	174	692	3.98
North Carolina	6	42	7.00	6	42	7.00
North Dakota	--	--	--	1	2	2.00
Ohio	--	--	--	3	11	3.67
Oregon	143	926	6.48	21	102	4.86
Pennsylvania	9	55	6.11	3	33	11.00
Virginia	184	1,430	7.79	8	63	7.88
Washington	--	--	--	14	79	5.64
Wisconsin	43	126	2.93	102	636	6.24
Total or average	2,540	15,900	6.24	4,010	22,100	5.51

rRevised. -- Zero.

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

[2]Less than 1/2 unit.

[3]A significant amount of sold or used material was shipped in from other States.

TABLE 24

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY GEOGRAPHIC DIVISION AND METHOD OF TRANSPORTATION[1]

(Thousand metric tons)

Region/division	Truck	Rail	Water	Other	Not transported	Not specified	Total
Northeast:							
New England	4,200	173	4	94	3,610	28,600	36,700
Middle Atlantic	76,300	1,640	--	3,820	6,900	94,400	183,000
Midwest:							
East North Central	107,000	8,370	17,100	697	19,500	114,000	267,000
West North Central	48,400	1,540	9,320	1,600	7,360	84,000	152,000
South:							
South Atlantic	177,000	9,830	2,370	1,810	11,200	177,000	379,000
East South Central	76,600	1,940	4240	1,410	15,800	60,700	161,000
West South Central	69,400	5,960	1,170	9,140	16,900	101,000	204,000
West:							
Mountain	19,600	1,820	--	2,190	2,500	24,900	51,000
Pacific	27,200	2,050	2,150	7,690	6,160	52,800	98,000
Grand total	606,000	33,300	36,400	28,500	90,000	738,000	1,530,000

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 25
CRUSHED AND BROKEN STONE OPERATIONS IN THE UNITED STATES IN 2003, BY STATE

State	Active operations	Active quarries	Dredging operations	Processing plants				Sales yards
				Stationary	Portable	Stationary and portable	None or unspecified	
Alabama	77	67	--	60	6	--	1	10
Alaska[1]	14	14	--	--	10	3	1	--
Arizona	40	40	--	13	22	2	3	--
Arkansas	58	55	--	28	14	7	6	3
California	139	136	1	73	47	9	11	1
Colorado	31	31	--	15	8	6	2	--
Connecticut	22	21	--	16	3	2	--	1
Florida	91	78	1	32	31	10	4	14
Georgia	84	81	--	78	1	--	1	4
Hawaii	20	22	--	10	8	2	--	--
Idaho	37	43	--	6	23	3	3	2
Illinois	130	123	--	73	40	7	--	10
Indiana	90	85	--	71	4	9	3	6
Iowa	205	218	--	22	172	2	12	5
Kansas	89	112	--	18	64	4	2	1
Kentucky	92	92	--	72	7	8	3	2
Louisiana	16	--	--	--	--	--	--	16
Maine	17	11	--	6	5	--	--	7
Maryland	31	30	1	21	3	2	2	2
Massachusetts	34	32	--	21	6	4	1	2
Michigan	30	30	--	17	7	2	3	1
Minnesota	36	36	--	6	23	1	6	--
Mississippi	17	3	--	3	--	--	--	14
Missouri	180	189	--	89	69	8	12	2
Montana	14	18	--	5	9	--	--	--
Nebraska	10	10	--	7	2	1	--	--
Nevada	17	20	--	13	4	--	--	--
New Hampshire	15	15	--	13	2	--	--	--
New Jersey	25	24	--	15	2	7	--	1
New Mexico	28	31	--	10	15	2	1	--
New York	90	87	--	70	7	9	1	--
North Carolina	111	106	--	93	9	1	3	5
North Dakota	3	3	--	--	1	--	2	--
Ohio	109	104	--	78	18	6	1	6
Oklahoma	55	56	--	41	5	8	1	--
Oregon	132	206	1	30	91	3	7	--
Pennsylvania	184	186	1	143	14	16	10	--
Rhode Island	7	7	--	7	--	--	--	--
South Carolina	37	31	--	28	--	2	2	5
South Dakota	11	15	--	11	--	--	--	--
Tennessee	122	120	--	106	8	3	1	4
Texas	158	136	--	85	35	9	3	28
Utah	28	29	--	11	16	1	--	--
Vermont	15	15	--	7	4	2	2	--
Virginia	114	96	--	89	2	4	2	18
Washington	89	133	--	28	35	7	19	1
West Virginia	45	37	--	30	2	2	1	10
Wisconsin	139	166	--	28	97	4	9	1
Wyoming	11	23	--	5	6	--	--	--
Total	3,149	3,223	5	1,703	957	178	141	182

[1]Data derived, in part, from Alaska Division of Geological and Geophysical Surveys.

TABLE 26

U.S. EXPORTS OF CRUSHED STONE IN 2003, BY DESTINATION[1]

(Metric tons unless otherwise specified)

Destination	Limestone	Limestone for cement manufacturing	Other	Chalk, crude	Granules, chippings	Total
North America:						
Antigua and Barbuda	10	--	--	--	--	10
Aruba	--	--	2	--	563	565
Bahamas, The	21	46	1,050	--	365	1,480
Belize	--	--	--	--	20	20
Bermuda	134	--	--	--	--	134
Canada	351,000	439,000	46,100	1,880	100,000	938,000
Cayman Islands	--	--	--	--	7	7
Costa Rica	--	--	--	--	36	36
Dominican Republic	--	9	16,100	1	7,480	23,600
El Salvador	--	--	--	1	--	1
Guatemala	--	14	61	1	--	76
Honduras	--	--	--	20	--	20
Jamaica	--	17	757	--	1	775
Mexico	5	48	1,190	152	4,100	5,500
Netherlands Antilles	--	--	18	--	--	18
Nicaragua	--	--	967	--	2	969
Panama	--	--	--	--	3	3
Trinidad and Tobago	22	--	3	4	167	196
Total	351,000	439,000	66,200	2,060	113,000	972,000
South America:						
Argentina	--	110	--	3	44	157
Brazil	--	44	--	1,070	92	1,210
Chile	--	6	--	535	71	612
Colombia	18	--	--	--	--	18
Ecuador	--	6	3	--	6	15
Venezuela	--	13	35	1	455	504
Total	18	179	38	1,610	668	2,510
Europe:						
Albania	--	--	--	--	--	--
Belgium	763	--	20	--	36	819
Cyprus	--	--	--	--	1	1
Denmark	--	--	--	--	20	20
France	--	--	3	1	--	4
Germany	--	2,690	838	6	95	3,630
Greece	--	--	--	1	--	1
Hungary	--	--	3	--	--	3
Iceland	--	--	6	--	120	126
Ireland	--	--	2	--	--	2
Netherlands	--	9	4,830	--	1	4,840
Russia	--	--	40	--	--	40
Slovenia	--	10	--	--	--	10
Spain	--	18	--	--	--	18
Sweden	--	--	51	--	42	93
Turkey	--	--	--	4	--	4
United Kingdom	--	895	4,850	--	1	5,740
Total	763	3,620	10,600	14	316	15,400
Asia:						
China	--	63	275	--	12	350
Hong Kong	--	--	487	24	8	519
India	--	--	--	--	1,020	1,020
Indonesia	--	19	--	--	4,000	4,020
Japan	279	--	222	--	20	521
Korea, Republic of	1,010	7	437	58	76	1,590
Malaysia	--	--	--	--	228	228

See footnotes at end of table.

TABLE 26--Continued
U.S. EXPORTS OF CRUSHED STONE IN 2003, BY DESTINATION[1]

(Metric tons unless otherwise specified)

Destination	Limestone	Limestone for cement manufacturing	Other	Chalk, crude	Granules, chippings	Total
Asia--Continued:						
Philippines	38	--	24	2	--	64
Singapore	--	--	452	50	542	1,040
Taiwan	--	--	9	--	17	26
Thailand	--	--	1	--	--	1
Vietnam	--	--	--	68	--	68
Total	1,330	89	1,910	202	5,930	9,450
Oceania:						
Australia	--	109	21	9	77	216
New Zealand	--	--	2	--	11,700	11,700
Total	--	109	23	9	11,800	11,900
Middle East:						
Israel	--	--	63	--	17	80
Kuwait	--	--	7	--	--	7
Lebanon	--	--	8	1	--	9
Oman	--	--	1	--	--	1
Qatar	--	--	4	--	--	4
Saudi Arabia	--	12	--	--	1,050	1,070
United Arab Emirates	--	--	18	--	62	80
Total	--	12	101	1	1,130	1,250
Africa, Morocco	--	--	34	--	--	34
Grand total:						
Quantity	354,000	443,000	78,900	3,900	133,000	1,010,000
Value thousands	$4,810	$12,100 [2]	$17,000	$3 [2]	$14,800	$45,600

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 27

U.S. IMPORTS OF CRUSHED STONE AND CALCIUM CARBONATE FINES, BY TYPE[1]

Type	2002			2003		
	Quantity (thousand metric tons)	Value, c.i.f.[2] (thousands)	Unit value	Quantity (thousand metric tons)	Value, c.i.f.[2] (thousands)	Unit value
Crushed stone and chips:						
Limestone	7,250	60,600	$8.36 r	7,970	70,700	$8.88
Limestone for flux or cement manufacturing	4,360	30,300	6.95 r	4,370	32,400	7.42
Quartzite	1	504	838.60 r	2	1,070	649.91
Other	2,650 r	32,600 r	12.77 r	2,980	38,100	12.77
Total or average	14,300 r	124,000 r	XX	15,300	142,000	XX
Calcium carbonate fines:[3]						
Natural chalk	(4)	27	53.05 r	(4)	9	204.55
Calcium carbonates, other chalk	(4)	285	662.79 r	(4)	349	662.24
Total or average	(4) r	312	XX	(4)	358	XX
Grand total or average	14,300	124,000 r	XX	15,300	143,000	XX

rRevised. XX Not applicable.

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

[2]Cost, insurance, and freight value.

[3]Excludes precipitated calcium carbonates.

[4]Less than 1/2 unit.

Source: U.S. Census Bureau.

FIGURE 1
PRODUCTION OF CRUSHED STONE IN THE UNITED STATES IN 2003, BY GEOGRAPHIC DIVISION